



TELANGANA STATE COUNCIL OF SCIENCE AND TECHNOLOGY (TSCOST)
Call for Research Project Proposals under Project Related Grants (PRG), DST, Gol
File No. No. 03/TSCOST/DST-PRG/2021-22, DT.31-12-2021

Under the financial support of the Department of Science and Technology (DST), Gol, TSCOST proposes to extend financial support to Research Project Proposals under Project Related Grants (PRG), DST, Gol. The main objective is to identify state specific & need based programs with remedial measures/ S&T interventions / solutions thereby to establish linkages / involve the concerned line departments, National laboratories, Universities, Institutions, R&D laboratories etc so that transfer of technology to ground could be achieved. Accordingly, TSCOST invites proposals under the Thrust Areas and Focus Areas from the Universities, R&D Laboratories, Academic Institutions, Government Organizations in the THRUST AREAS & FOCUS AREAS ENCLOSED to this call.

The proposal shall be evaluated strictly based on the merits only.

The outcome of the proposed project is aimed at:

- R&D in Advancement in Basic / Applied Scientific Research which has social relevance.
- Demonstration / Training projects exclusively in SC/ST areas / population
- Generation / Innovation of new technologies for commercialization
- Studies and survey for identification of local problems with a suggestion for suitable S&T intervention

The interested institutions may submit the application (HARD COPY) through proper channel in the PRESCRIBED FORMAT (ENCLOSED) before the last date (31.01.2022) to :

The Member Secretary
Telangana State Council of Science & Technology (TSCOST)
4th Floor, AranyaBhavan, Opp. RBI, Saifabad, Hyderabad
Tel: (040) 24619675, (040) 24600590
E-mail: secy_tscst@telangana.gov.in
Website: <https://tscost.telangana.gov.in>

LAST DATE FOR SUBMITTING THE PROPOSAL : 31-01-2022

Note:

- (1) The applications which are received through post, courier, in person are only accepted on or before 31.01.2022

Enclosures:

1. THRUST AREAS & FOCUS AREAS
2. PRESCRIBED FORMAT

N. S. S.
MEMBER SECRETARY
TSCOST
2021

PS

THRUST AREAS & FOCUS AREAS

THRUST AREAS:

- 1) Registration of Patents, Copy Rights & Geographical Indicators (GIs) generated in the State for protection of Intellectual Property Rights (IPR)
- 2) Transfer of Technologies from Central R&D Institutions to the State Institutions for societal applications
- 3) To Coordinate with the Universities to assess the research work and to provide Central / State funding tie-ups such as Young Scientist Fellowship and Research Grants etc.,
- 4) To Conduct the Popularization of Science activities, Skill Development Activities etc., for the benefit of Students / unemployed youth of Telangana State.

FOCUS AREAS:

Agriculture

- Implementation of new approaches in Seed Preservation including indigenous seed varieties; Introduction of new crops of grains, new varieties of fruits, flowers suitable to the agro-climatic conditions at regional/zonal level, for example date palm; New methods for improvement of soil fertility, water conservation, crop yield etc. and New methods for protection of crop in association with Agriculture & Horticulture Departments, Agricultural Universities, Krishi Vigyan Kendras.
- Bamboo cultivation to be promoted in association with Centre for Innovation in Public Systems (CIPS) which contributes to livelihoods, with use of technology several products can be produced which are eco friendly.
- Crop diversification or alternative cropping - reduces the stress on soil. Rather than continuously cropping paddy, which diminishes quality of soil. It can be regained with cropping of ID crops.
- Synthetic and Organic fertilizers - Bio-fertilizers shall be prepared using cattle waste
- Low-cost diagnostic toolkit for extension workers- Improving the Productivity in Agri.

Environment Protection

- Implementation of new methods based on IoT, GPS, GIS, Remote Sensing and bio-technology for control of pollution of air, ground water, soil contamination, caused due to mining, industries, animal slaughter houses, textile mills, powerloom saree making clusters
- Implementation of new methods for conversion of plastics into bio-degradable material / other re-cyclable forms to reduce the effect on environment in association with TSPCB, EPTRI, Industries Dept. and Handlooms & Textiles dept.

Biodiversity Conservation

- Identification of problem areas associated with Protection of Life systems (botanical, zoological including aquatic) on Land and under Water and implementation of suitable methods for conservation of the same in association with TSBDB and respective line departments.
 - Liquid nitrogen and low-cost alternatives for animal semen preservation
 - Low-cost diagnostic toolkits for livestock veterinarians
 - Tissue engineering for laboratory-grown animal products
 - Low-cost veterinary pharmaceuticals (ideally thermostable)

Forest Conservation & Development

- Implementation of new methods based on IoT, GPS, GIS, Remote Sensing, bio-technology etc. for forest conservation & development
- Implementation of new varieties of plantations for feeding wood gasifiers, boilers and for other fuel needs in association with Forest Department.
- Creating and improving bio-diverse eco-systems with technology intervention

Water conservation

- Implementation of new approaches for conservation/ safety of drinking water, ground water, water in rivers, rivulets, lakes, aquifers etc. in association with Groundwater department, RWS, Panchayats, Municipalities, Municipal Corporations
 - Smart metering could be used to manage the demand
 - Desalination or reverse osmosis technologies can be implemented
 - Technology could enable increased leakage detection
 - Portable sensors for groundwater detection

Waste Management

- Implementation of new methods for Sewage treatment, Waste (Dry Waste, Wet Waste) to wealth generation mechanisms, new methods for drainage cleaning systems in association with Municipal Corporations, Municipalities etc.
 - Facilitate recyclable materials technologies, and apply to minimize industrial waste in the environment
 - Novel biodegradable packaging materials

Food processing

- Implementation of pilot scale plants in Food Processing, Fruit processing, Meat Processing, Fish Processing including Packaging, Marketing tie-up etc. in association with TSIC, SERP, Rural Development Dept, Agriculture & Agricultural Marketing Dept. with proper waste treatment methods
 - Technology intervention in marketing of tribal (NTFP) products, strengthening tribal marketing institutions like the GCC and ITDAs

Energy Conservation, Production

- Implementation of new technologies in solar, wind, hybrid power systems, micro-hydel aiming at energy conservation & production and implementation of new technologies providing scope for saving of energy in industries in association with Energy dept, NREDCAP, Industries dept. etc.
 - District level action plans for electrifying the freight transport and embracing EVs for delivery and ridesharing
 - Constructing grain bins and silos with low cost technology; checking the performances of warehouses with advanced digitised tools
 - Smart grid management in industries to use both electricity & data at once

Data Analytics for policy making

- One of the missing links is the lack of data analytics for policymaking. Using data for policy decision for better outcomes.

Other priority areas are Medical & Health, Information Technology, Remote sensing, Nano Sciences, Biotechnology etc.,

FORMAT FOR SUBMISSION OF PROPOSALS UNDER " PROJECT RELATED GRANT
(PRG)" PROGRAMME OF DST (GOI)
(TO BE FILED BY APPLICANT)

A. IDENTIFICATION

1. Project title:

Key words

2. State :

3. Broad Area

- i. S&T studies / surveys (St)
- ii. Location Specific Research & Technology Development (LSR)
- iii. S&T Demonstration Projects (DP)
- iv. Replication of Successful Models (RP)
- v. Joint S&T Programmes on specific theme (please specify) (JP)
- vi. Information Exchange & Experience Sharing (IE)
- vii. Awareness & Training on specific topic (Please specify) (TRG)

4. Duration: (number of months)

5. Total Cost:

6. Principal Investigator:

6.1 Name:

6.2 Department:

6.3 Designation:

6.4 Organisation / Institution Name:

6.5 Address (Including Telephone (Official & residence), E-mail, Fax) Pin:

6.6 Date of Birth:

6.7 Sex (M/F):

7. Co-Investigator:

7.1 Name:

7.2 Designation

7.3 Department

7.4 Organisation / Institution Name:

7.5 Address (Including Telephone (Official & residence), E-mail, Fax) Pin:

7.6 Date of Birth:

7.7 Sex (M/F):

8. Capability of the Organisation:

(a) Expertise available

(b) List of on-going and completed projects giving the following details

Project Title

Start date

Completion date

Project Cost

Sponsoring Organisation

B. TECHNICAL DETAILS

1. Background

1.1 Description of problem

1.2 Review of work already done

1.3 Rationale for taking up the project

1.4 Relevance to State priorities

1.5 Financial resources committed at State level

2. Challenge & Constraints

Please identify strengths and weaknesses of the implementers vis-a-vis current project in terms of technical expertise, team building, past record etc.. Also list the perceived opportunities and threats and describe how PI/Organisation proposes to capitalise on them or avert them.

3. Description of Proposal

3.1 Objectives of the project (Brief and to the point)

3.2 Preliminary Investigations done by organisation (if any)

3.3 S&T component in the project

3.4 Linkage with S&T Instts./NGOs/ resource persons / R&D organisation / Industry for technical back-up

3.5 Other organisations working in this area

3.6 Methodology detailing stepwise activities and sub-activities

4. Work Plan

Phase-wise plan of action upto post project activities detailing time schedule Milestones may clearly be indicated. PERT/GANTT chart may be attached.

5. Output of the Project

Attempt may be made to quantify output in measurable parameters

6. Likely Impact (Please attempt to quantify)
7. Parameters for monitoring effectiveness of project
8. Suggested Post Project Activities

C. BUDGET ESTIMATES : SUMMARY

(In Rupees)

Item	BUDGET			
	1st Year	2nd Year	3rd Year	Total
A. Recurring				
1. Salaries / Wages				
2. Consumables				
3. Travel				
4. Other Costs				
B. Non-Recurring				
1. Permanent Equipment				
Grand Total (A+B)				

* Financial Year : April to March

* Count six months from submission of the proposal to arrive at expected time point for commencement of the project

* Please provide brief justification for each head of expenditure (100 words for each)

A.1 BUDGET FOR SALARIES / WAGES

(In Rupees)

Designation (number of persons)	Monthly Emoluments	BUDGET			
		1st Year (m.m)	2nd Year (m.m)	3rd Year (m.m)	Total (m.m)
Full time					
i)					
ii)					
Part time					
i)					
ii)					
Total					

* m.m. man months to be given within brackets before the budget amount

A.2 BUDGET FOR CONSUMABLES

(In Rupees)

Item	BUDGET			
	1st Year	2nd Year	3rd Year	Total
Total				

A.3 BUDGET FOR TRAVEL

(In Rupees)

Item	BUDGET			
	1st Year	2nd Year	3rd Year	Total
Travel 1. Local *				
2. Out Station*				
Total				

* Please specify

A.4 BUDGET FOR OTHER COSTS

(In Rupees)

Item	BUDGET			
	1st Year	2nd Year	3rd Year	Total
a. Contingencies				
b. Others				
Total				

B. 1 BUDGET FOR PERMANENT EQUIPMENT

(In Rupees)

Sl.No.	Name of equipment *	Estimated cost
1.		
2.		
Total		

* Please give justification for each equipment

D. PROFORMA FOR BIO-DATA OF INVESTIGATORS (PI & CO PI)

A. Name :

B. Date of Birth :

C. Institutions:

D. Whether belongs to SC/ST:

E. Academic career:

Professional career:

F. Award/prize/certificate etc won by the investigator:

G. Publication (Numbers only):

Books

Research Paper

General articles

Patents

Others (please specify)

Sl.No.	Title of Project	Duration		Total cost	Funding Agency
		From	To		

I. Projects submitted

Sl.No.	Title of project	Name of Organisation	Status
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(Name & Signature)

Date

Place

E. ENDORSEMENT FROM THE HEAD OF INSTITUTION
(TO BE GIVEN ON LETTER HEAD)

PROJECT TITLE:

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-
1. Certified that the Institute welcomes participation of Dr./Shri/Smt/Kum.....
..... as the Principal Investigator and Dr./Shri/Smt/Kum.....
..... as the Co-Investigator for the project and that in the unforeseen event of
discontinuance by the Principal Investigator, the Co-Investigator will assume the responsibility of
the fruitful completion of the project (with due intimation to DST (GOI))
 2. Certified that the equipment, other basic facilities and such other administrative facilities as per
terms and conditions of the grant, will be extended to investigator(s) throughout the duration of the
project.
 3. Institute assumes to undertake the financial and other management responsibilities of the project

Name and Signature of Head of Institution

Date:
Place